

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-30. (Canceled).

31. (Currently Amended) An inhibitor of HIV replication, comprising an antiviral peptide, wherein:

the antiviral peptide consists of a decapeptide containing (from the N-terminus to the C-terminus) a basic amino acid at position 1; an acidic amino acid at positions 2 and 5; a tryptophan at positions 4, 7, and 8; a threonine, isoleucine or valine at position 3; a threonine, alanine, or glutamine at position 6; a threonine, alanine, valine, isoleucine, methionine, or aspartate at position 9; and a glutamate, aspartate or asparagine at position 10;

the decapeptide inhibits the dimerization of HIV reverse transcriptase; and

the decapeptide is not KETWETWWTE (SEQ ID NO: 1).

32. (Previously Presented) The inhibitor of claim 31, wherein the basic amino acid at position 1 is lysine or arginine.

33. (Previously Presented) The inhibitor of claim 31, wherein the acidic amino acid at position 2 is glutamate.

34. (Previously Presented) The inhibitor of claim 31, wherein the amino acid at position 5 is glutamate.

35. (Previously Presented) The inhibitor of claim 31, further comprising a pharmaceutically acceptable excipient.

36. (Previously Presented) The inhibitor of claim 31, further comprising a vector that allows penetration of the antiviral peptide into a mammalian cell.

37. (Previously Presented) The inhibitor of claim 36, wherein the vector is selected from the group consisting of: a liposome, a polymeric protein-binding cation, a protein, a peptide, a microparticle, and a nonoparticle.

38. (Previously Presented) The inhibitor of claim 37, wherein the vector is a peptide.

39. (Previously Presented) The inhibitor of claim 38, wherein the peptide is an MPG peptidyl carrier.

40. (Previously Presented) The inhibitor of claim 39, wherein the MPG peptidyl carrier comprises SEQ ID NO: 2 or SEQ ID NO: 3.

41. (Previously Presented) The inhibitor of claim 39, wherein the MPG peptidyl carrier and the antiviral peptide are in the form of a complex.

42. (Previously Presented) The inhibitor of claim 41, wherein the complex comprises the MPG peptidyl carrier and the antiviral peptide at a ratio of about 20 molecules of the MPG peptidyl carrier for 1 molecule of the antiviral peptide.

43-44. (Canceled).

45. (Previously Presented) An inhibitor of HIV replication comprising a chimeric peptide, wherein the chimeric peptide comprises:

(a) a decapeptide containing (from the N-terminus to the C-terminus) a basic amino acid at position 1; an acidic amino acid at positions 2 and 5; a tryptophan at positions 4, 7, and 8; a threonine, isoleucine or valine at position 3; a threonine, alanine, or glutamine at position 6; a threonine, alanine, valine, isoleucine, methionine, or aspartate at position 9; and a glutamate, aspartate or asparagine at position 10; wherein the decapeptide inhibits the dimerization of HIV reverse transcriptase, and

(b) an MPG peptidyl carrier peptide.

46. (Previously Presented) The inhibitor of claim 45, wherein the basic amino acid at position 1 is lysine or arginine.

47. (Previously Presented) The inhibitor of claim 45, wherein the acidic amino acid at position 2 is glutamate.

48. (Previously Presented) The inhibitor of claim 45, wherein the amino acid at position 5 is glutamate.

49. (Previously Presented) The inhibitor of claim 45, further comprising a pharmaceutically acceptable excipient.

50. (Previously Presented) The inhibitor of claim 45, wherein the MPG peptidyl carrier peptide is SEQ ID NO: 2 or SEQ ID NO: 3.

51. (Previously Presented) The inhibitor of claim 45, wherein the decapeptide is SEQ ID NO: 1.

52. (Previously Presented) The inhibitor of claim 45, wherein the chimeric peptide is SEQ ID NO: 4.

53. (Previously Presented) The inhibitor of claim 45, wherein the chimeric peptide is SEQ ID NO: 6.